

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) A directional coupler comprising:

coupled lines ~~(8, 9)~~, including a first line ~~(8)~~ and a second line ~~(9)~~, and

at least one ground plane ~~(10, 11, 13)~~, characterised in that

wherein at least one of the ground planes is a tuning ground plane ~~(10, 11, 13)~~, in that and a distance ~~(14, 25)~~, between the first ~~(8)~~ and the second ~~(9)~~ line; and each distance ~~(15, 17, 26, 27)~~, between the first line ~~(8)~~ and the respective tuning ground plane ~~(10, 11, 13)~~, are adapted so as to contribute to a desired coupling level under compensation conditions, and in that

wherein an electrical length of the directional coupler is a quarter or less of length of ~~the~~ a wave propagated ~~wave~~ in the directional coupler, and

wherein a region between the first and the second lines comprises at least partly a gas, and at least one dielectric layer is arranged between the second line and the at least one tuning ground plane, whereby each distance between the first line and the respective tuning ground plane is dependent on the respective distance between each tuning ground plane and a boundary between the gas and the dielectric layer.

2. (currently amended) A directional coupler according to claim 1, wherein the respective width of the first and/or the second line ~~(8, 9)~~ ~~are~~ is adapted so as to contribute to a desired coupling level under compensation conditions.

3. (currently amended) A directional coupler according to claim 1, wherein the distance (14, 25) between the first (8) and the second (9) line refers to a horizontal distance (14, 25) in a direction parallel to the at least one ground plane (10, 11, 13) and perpendicular to a longitudinal direction of the coupled lines (8, 9).

4. (currently amended) A directional coupler according to claim 1, wherein the second line (9) and the at least one tuning ground plane (10, 11, 13) are located on the same side of the first line (8).

5. (currently amended) A directional coupler according to claim 1, comprising at least two conductive layers (4, 5, 6, 7) located on the same side of the first line, whereby the at least one dielectric layer (1, 2, 3) is interposed between the conductive layers.

6. (currently amended) A directional coupler ~~according to claim 1~~, comprising:
coupled lines including a first line and a second line (9), and
at least one ground plane,
wherein at least one of the ground planes is a tuning ground plane and a distance between
the first and the second line and each distance between the first line and the respective tuning
ground plane, are adapted so as to contribute to a desired coupling level under compensation
conditions,
wherein an electrical length of the directional coupler is a quarter or less of length of a
wave propagated in the directional coupler, and

wherein the first line (8) comprises at least two strips separated in a vertical direction and electrically joined by ~~means of~~ at least one connection (21).

7. Canceled.

8. (currently amended) A method for achieving coupling in a directional coupler under compensated conditions, the coupler ~~comprising~~ including coupled lines (8, 9), including a first (8) and a second (9) line, and at least one ground plane (10, 11, 13), ~~characterised in that it comprises the method comprising:~~

choosing a distance (14, 25), between the first (8) and the second (9) line, and each distance (26, 27), between the first line (8) and an edge of at least one of the ground planes (10, 11, 13), so as to contribute to a desired coupling level under compensation conditions, ~~in addition to which~~

wherein an electrical length of the directional coupler is a quarter or less of the wavelength of a wave propagated in the directional coupler, and

wherein the second line and said respective edge of at least one of the ground planes are positioned on the same side of the first line.

9. (currently amended) A method according to claim 8, wherein the respective width of the first and/or the second line (8, 9) are chosen so as to contribute to a desired coupling level under compensation conditions.

10. (currently amended) A method according to claim 8, wherein the distance ~~(14, 25)~~ between the first ~~(8)~~ and the second ~~(9)~~ line refers to a horizontal distance ~~(14, 25)~~ in a direction parallel to the at least one ground plane ~~(10, 11, 13)~~ and perpendicular to a longitudinal direction of the coupled lines ~~(8, 9)~~.

11. Canceled.

12. (new) A method according to claim 8, a wherein region between the first and the second lines comprises at least partly a gas, and at least one dielectric layer is arranged between the second line and the at least one tuning ground plane, whereby each distance between the first line and the respective tuning ground plane is dependent on the respective distance between each tuning ground plane and a boundary between the gas and the dielectric layer.